



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,894	02/22/2002	Markus Blume	MTL-001	9380

29626 7590 01/14/2005

THE H.T. THAN LAW GROUP
1010 WISCONSIN AVENUE NW SUITE 580
WASHINGTON, DC 20007

EXAMINER

WASSUM, LUKE S

ART UNIT	PAPER NUMBER
----------	--------------

2167

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

10/080,894

Applicant(s)

BLUME ET AL.

Examiner

Luke S. Wassum

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 29-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 29-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The Invention

1. The claimed invention is a method for searching for data stored on a distributed system, wherein the data contains a time indicator relating to the point in time or period when the data was available on the system.

Election/Restrictions

2. Applicant's election without traverse of the claims of Group I (claims 1-22) in the reply filed on 27 July 2004 is acknowledged.
3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Response to Amendment

4. The Applicants' amendment, filed 27 July 2004, has been received, entered into the record, and considered. As a result of the amendment, claims 23-28 have been canceled, and new claims 29-38 have been added. Claims 1-22 and 29-38 are now pending in the application.

Priority

5. The Applicants' claim to foreign priority under 35 U.S.C. § 119, based upon German Patent Application DE 101 08 564.8, filed 22 February 2001, is acknowledged.

6. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

7. The drawings are objected to because they fail to show necessary textual labels of features or symbols in Figs. 1-3 as described in the specification. For example, placing a label, "Search Engine", with element 4a of Fig. 1, would give the viewer necessary detail to fully understand this element at a glance. A descriptive textual label for each numbered element in these figures would be needed to better understand these figures without substantial analysis of the detailed specification. Any structural detail that is of sufficient importance to be described should be labeled in the drawing. Optionally, the applicant may wish to include a table next to the present figure to fulfill this requirement. See 37 CFR 1.84(n)(o), recited below:

"(n) Symbols. Graphical drawing symbols may be used for conventional elements when appropriate. The elements for which such symbols and labeled representations are used must be adequately identified in the specification. Known devices should be illustrated by symbols which have a universally recognized conventional meaning and are generally accepted in the art. Other symbols which are not universally recognized may be used, subject to approval by the Office, if they are not likely to be confused with existing conventional symbols, and if they are readily identifiable.

(o) Legends. Suitable descriptive legends may be used, or may be required by the Examiner, where necessary for understanding of the drawing, subject to approval by the Office. They should contain as few words as possible."

Specification

8. The disclosure is objected to because of the following informalities:

The paragraph at page 2, lines 26-30 is duplicated on page 3, lines 9-12;

On page 13, at the end of line 32, the word "data" should be "date".

Appropriate correction is required.

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 1-4, 10, 11, 15-19 and 29-38 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The language of the claims raises a question as to whether the claims are directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful and tangible result to form the basis of statutory subject matter under 35 U.S.C. § 101.

In this case, the claims as presented fail to claim a technological basis in the body of the claims. Without a claimed basis, the claim may be interpreted in an alternative as involving no more than a manipulation of abstract ideas, and therefore non-statutory under 35 U.S.C. § 101. In contrast, a claim that includes in the body of the claim at least one structural/functional interrelationship which can only be computer implemented is considered to have a technological

Art Unit: 2167

basis. See *Ex Parte Bowman*, 61 USPQ2d 1669 (BdPatApp&Int 2001). See also MPEP § 2106.IV.B.1.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 2, 9 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

13. Regarding claims 2, 9 and 17, these claims cite the limitation of "if there is no time parameter", while each of their respective parent claims cite the limitation "wherein the search terms comprise a time parameter". Since the search terms cannot comprise a time parameter and at the same time there be no time parameter, these claims are rendered indefinite.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international

Art Unit: 2167

application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

15. Claims 1-3, 5-22, 29, 30, 33-35 and 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Ong (U.S. Patent Application Publication 2002/0016789).

16. Regarding claim 1, Ong teaches a method of automated searching for data or data-holding resources stored on a distributed system as claimed, comprising the steps of:

a) transmitting an enquiry containing one or more search terms to a search unit (see disclosure that the user can submit enquiries containing one or more search terms, resulting in a search of the archives, paragraphs [0016] through [0038], and particularly paragraphs [0020] and [0030]);

b) searching for data or data-holding resources stored on the system which satisfy the condition defined by the search terms (see paragraphs [0020], [0030] and [0045]); and

c) outputting the data and/or information related to the resources which hold such data, which is found in the search (see paragraph [0045]),

wherein the data stored on the system comprises a sequential time indicator relating to the point in time or period when the data is or was available on the system (see description of different time stamp formats, paragraphs [0016] through [0038]), and

wherein the search terms comprise a time parameter which confines the search to the point in time and/or period defined by the time parameter (see disclosure of the search terms being submitted with the URL, paragraphs [0016] through [0038]).

17. Regarding claim 7, **Ong** teaches a search engine for automated searching for data or data-holding resources stored on a distributed system as claimed, wherein the search engine is designed to:

a) receive an enquiry containing one or more search terms (see disclosure that the user can submit enquiries containing one or more search terms, resulting in a search of the archives, paragraphs [0016] through [0038], and particularly paragraphs [0020] and [0030]);

b) search for data or data-holding resources stored on the system which satisfy the condition defined by the search terms (see paragraphs [0020], [0030] and [0045]); and

c) output the data and/or information related to the resources which hold such data, which is found in the search (see paragraph [0045]),

wherein the data stored on the system comprises a sequential time indicator relating to the point in time or period when the data is or was available on the system (see description of different time stamp formats, paragraphs [0016] through [0038]), and

wherein the search terms comprise a time parameter which confines the search to the point in time and/or period defined by the time parameter (see disclosure of the search terms being submitted with the URL, paragraphs [0016] through [0038]).

18. Regarding claim 10, **Ong** teaches a method of accessing resources on a distributed system and of receiving and/or displaying data stored on said resources as claimed, wherein the data stored on the system contains a sequential time indicator relating to the point in time or period when the data is or was available on the system (see description of different time stamp formats, paragraphs [0016] through [0038]) and wherein, when the data is displayed, the information contained in the

time indicator can be shown at the same time (see disclosure that the time stamp is stored as part of the URL, said URL conventionally displayed in the location/ address portion of conventional web browsers, paragraphs [0016] through [0038]).

19. Regarding claim 14, **Ong** teaches a browser for accessing resources on a distributed system and of receiving and/or displaying data stored on said resources as claimed, wherein the data stored on the system contains a sequential time indicator relating to the point in time or period when the data is or was available on the system (see description of different time stamp formats, paragraphs [0016] through [0038]) and wherein, when the data is displayed, the information contained in the time indicator can be shown at the same time (see disclosure that the time stamp is stored as part of the URL, said URL conventionally displayed in the location/ address portion of conventional web browsers, paragraphs [0016] through [0038]).

20. Regarding claim 15, **Ong** teaches a method for accessing resources on a distributed system and of receiving and/or displaying data stored on said resources as claimed, wherein the data stored on the system contains a sequential time indicator relating to the point in time or period when the data is or was available on the system (see description of different time stamp formats, paragraphs [0016] through [0038]) and wherein access to the data or data-holding resources on the system takes place as a function of a presettable time parameter (see disclosure that the browser can include a mechanism allowing the user to specify a desired date and time, paragraphs [0008] and [0039]).

21. Regarding claim 22, **Ong** teaches a browser for accessing resources on a distributed system and of receiving and/or displaying data stored on said resources as claimed, wherein the data stored on the system contains a sequential time indicator relating to the point in time or period when the data is or was available on the system (see description of different time stamp formats, paragraphs [0016] through [0038]) and wherein access to the data or data-holding resources on the system takes place as a function of a presettable time parameter (see disclosure that the browser can include a mechanism allowing the user to specify a desired date and time, paragraphs [0008] and [0039]).

22. Regarding claims 2, 9 and 17, **Ong** additionally teaches a method and search engine for accessing resources on a distributed system characterized in that if there is no time parameter the search is carried out simply among the data currently made available by the resources (see paragraphs [0020] and [0061]).

23. Regarding claim 3, **Ong** additionally teaches a method for accessing resources on a distributed system characterized in that in the event of the search producing a unique result the data found is output directly (see paragraph [0008]).

24. Regarding claims 5, 12 and 20, **Ong** additionally teaches a computer program for carrying out a method for accessing resources on a distributed system (see disclosure of the use of a web browser and web server in paragraph [0008]).

25. Regarding claim 6, **Ong** additionally teaches a computer program for carrying out a method for accessing resources on a distributed system characterized in that it is an add-on program for a search engine for searching for data or data-holding resources stored on a distributed system (see disclosure of the fact that the web server must recognize and process time stamps, said functionality constituting the claimed add-on, paragraph [0040]).

26. Regarding claim 8, **Ong** additionally teaches a search engine characterized in that it searches for data or resources which satisfy the condition(s) defined by the search term(s) in a memory connected to it which makes references to the data or data-holding resources present on the system (see paragraphs [0020], [0030] and [0045]).

27. Regarding claims 11 and 16, **Ong** additionally teaches a method characterized in that the sequential time indicator forms an expansion of the locator for addressing the data (see disclosure that the time stamp can constitute an expansion of the URL, paragraphs [0016] through [0038]).

28. Regarding claims 13 and 21, **Ong** additionally teaches a computer program for carrying out a method for accessing resources on a distributed system characterized in that it is an add-on program for a browser for accessing resources stored on a distributed system and for receiving and/or outputting data stored on said resources (see disclosure that the web browser incorporates new options selection panel to permit the user to specify the desired date and time, said functionality constituting the claimed add-on, paragraph [0039]).

Art Unit: 2167

29. Regarding claim 18, **Ong** additionally teaches a method characterized in that in the event that no data whose sequential time indicator meets the condition preset by the time parameter is available on the resource which is accessed, an archive for archiving data is accessed (see Persistent Archive corresponding to each web server, Figure 1; see also paragraph [0047]).

30. Regarding claim 19, **Ong** additionally teaches a method characterized in that in the event that no data whose sequential time indicator meets the condition preset by the time parameter is available anywhere on the system, data which is or was available before or after the point in time or period specified by the time parameter is automatically accessed (see paragraph [0046]).

31. Regarding claim 29, **Ong** additionally teaches a method wherein the data stored on the system was archived by a method comprising the steps of:

- a) calling up or receiving data from the distributed system (see paragraphs [0047] through [0050]);
- b) adding to the data a sequential time indicator relating to the point in time or period when the data is or was available on the system if the data does not as yet have a sequential time indicator (see paragraphs [0047] through [0050]); and
- c) archiving the data in a data archive or a repository in such a way that the data can be accessed by search engines, browsers or programs (see paragraphs [0047] through [0050]).

32. Regarding claim 30, **Ong** additionally teaches a method characterized in that the archiving of the data takes place in such a way that any manipulation of the archived data is ruled out or any.

manipulation which there may be can be detected when data archived on the resources is called up (see disclosure that the persistent archives are stored on non-writable or write-once media, such as CD-ROM, CD-R, WORM or DVD-ROM, paragraph [0046]).

33. Regarding claim 33, **Ong** additionally teaches a method characterized in that the repository archives the data on its own initiative following a preset scheme (see disclosure that the archiving process can be performed monthly, paragraph [0053]; see also disclosure that the archiving process can be performed daily, paragraph [0056]).

34. Regarding claim 34, **Ong** additionally teaches a method wherein the data stored on the system was archived by a method comprising the steps of:

- a) calling up or receiving data from the distributed system (see paragraphs [0047] through [0050]);
- b) adding to the data a sequential time indicator relating to the point in time or period when the data is or was available on the system if the data does not as yet have a sequential time indicator (see paragraphs [0047] through [0050]);
- c) archiving the data in a data archive or a repository in such a way that the data can be accessed by search engines, browsers or programs (see paragraphs [0047] through [0050]); and
- d) archiving an item of verification information relating to the data in the repository (see disclosure that the data is archived with chronological information in a tree structure, said chronological information constituting the claimed verification information, paragraph [0047]).

35. Regarding claim 35, **Ong** additionally teaches a method characterized in that the archiving of the data or item of verification takes place in such a way that any manipulation of the archived data or item of verification is ruled out or any manipulation which there may be can be detected when data archived on the resources is called up (see disclosure that the persistent archives are stored on non-writable or write-once media, such as CD-ROM, CD-R, WORM or DVD-ROM, paragraph [0046]).

36. Regarding claim 38, **Ong** additionally teaches a method characterized in that the repository archives the data on its own initiative following a preset scheme (see disclosure that the archiving process can be performed monthly, paragraph [0053]; see also disclosure that the archiving process can be performed daily, paragraph [0056]).

Claim Rejections - 35 USC § 103

37. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

38. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 2167

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

39. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

40. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ong (U.S. Patent Application Publication 2002/0016789) as applied to claims 1-3, 5-22, 29, 30, 33-35 and 38 above, and further in view of Lal (U.S. Patent 6,684,204).

41. Regarding claim 4, Ong teaches a method of automated searching for data or data-holding resources stored on a distributed system substantially as claimed.

Ong does not explicitly teach a method wherein in the event a plurality of records or data-holding resources are found which satisfy the condition defined by the search terms, a list or graphic overview of the data records found or of the resources which hold the data found is output.

Lal, however, teaches a system for conducting a search on a network wherein in the event a plurality of records or data-holding resources are found which satisfy the condition defined by the search terms, a list or graphic overview of the data records found or of the resources which hold the data found is output (see Figure 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to display the results of a search in a list when more than one result satisfies the search terms, since this would allow the user to select the desired record based upon a summary of data, without the need to display each and every matching record to find those records that are actually of interest.

42. Claims 31, 32, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ong** (U.S. Patent Application Publication 2002/0016789) as applied to claims 1-3, 5-22, 29, 30, 33-35 and 38 above, and further in view of **Singhal** (U.S. Patent 6,615,244).

43. Regarding claims 31, 32 and 36, **Ong** teaches a method of automated searching for data or data-holding resources stored on a distributed system substantially as claimed.

Ong does not explicitly teach a method characterized in that the archiving of the data takes place at the instigation of a user.

Singhal, however, teaches a method wherein the archiving of the data takes place at the instigation of a user (see col. 3, lines 5 and 41-44, and col. 4, line 18 et seq.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to allow the manual backup of data, since this would allow a user to specify the disk, directories and files for archiving (see col. 3, lines 41-44).

44. Regarding claim 37, Ong teaches a method of automated searching for data or data-holding resources stored on a distributed system substantially as claimed.

Ong does not explicitly teach a method characterized in that the archiving of the data takes place at the instigation of a resource.

Singhal, however, teaches a method wherein the archiving of the data takes place at the instigation of a resource (see disclosure that the automatic backup function is initiated during idle times during browsing, col. 3, lines 45-50).

It would have been obvious to one of ordinary skill in the art at the time of the invention to initiate the archive operation at the instigation of a resource, since this allows the system to optimize the performance of the data archiving operation.

Conclusion

45. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Suzuoka et al. (U.S. Patent 5,933,832) teaches a retrieval system for performing database retrieval.

Freeman et al. (U.S. Patent 6,006,227) teaches a document stream operating system wherein documents are stored in one or more chronologically ordered streams.

Freeman et al. (U.S. Patent 6,638,313) teaches a document stream operating system wherein documents are stored in one or more chronologically ordered streams.

Freeman et al. (U.S. Patent 6,725,427) teaches a document stream operating system wherein documents are stored in one or more chronologically ordered streams.

Freeman et al. (U.S. Patent Application Publication 2002/0046220) teaches a document stream operating system wherein documents are stored in one or more chronologically ordered streams.

Ong (U.S. Patent Application Publication 2002/0156800) teaches a method for providing persistent storage of Web resources.

Ong (European Patent Application EP 1-160,692-A2) teaches a method for providing persistent storage of Web resources.

Ong (Japanese Patent JP 2002-055869-A) teaches a method for providing persistent storage of Web resources.

Freeman et al. ("Lifestreams: A Storage Model for Personal Data") teaches a time-ordered stream of documents as an underlying document storage system.

Kahle ("Archiving the Internet") teaches the Internet Archive.

Simonson et al. ("Version Augmented URIs for Reference Permanence via an Apache Module Design") teaches a system for extending a document's URI to include date or revision

Art Unit: 2167

information thus allowing document providers to permit users to refer accurately to a particular document version.

Shafer et al. ("Introduction to Persistent Uniform Resource Locators") teaches a persistent URL service.

Weibel et al. ("PURLs: Persistent Uniform Resource Locators") teaches a persistent URL service.

Rekimoto ("Time-Machine Computing: A Time-Centric Approach for the Information Environment") teaches the concept of Time-Machine Computing, allowing a user to visit the past and the future states of computers.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke S. Wassum whose telephone number is 571-272-4119. The examiner can normally be reached on Monday-Friday 8:30-5:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

In addition, INFORMAL or DRAFT communications may be faxed directly to the examiner at 571-273-4119.

Customer Service for Tech Center 2100 can be reached during regular business hours at (571) 272-2100, or fax (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Luke S. Wassum
Primary Examiner
Art Unit 2167